

PRELIMINARY REVISION OF THE GENUS *LONICERA*  
IN MALAYSIA

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*With two text-figures*

IN MY yet unpublished "Javanese Mountain Plants in Colours" I recognize two indigenous species of *Lonicera*, as did Blume in his "Bijdragen," p. 653, 1825. Topotypes are abundant in the Buitenzorg Herbarium. The question arose which were the appropriate names for the Javanese species, as the naming of the herbarium material was in some disorder. The latest suggestion was (in herb.) that of C. A. Backer and W. M. Docters van Leeuwen, who assumed that *L. Loureiri* represented only an extreme "alpine" form of *L. javanica*; hence, they recognized only one variable species in Java. Since I could not agree to this, I made a study of all Malaysian *Lonicerae* present in our herbarium. As I have not seen types of several extra-Javanese "species," my conclusions are provisional.

The genus is by no means a difficult one but, on the other hand, there is a rather large variability in characters supposed to be important for specific distinction, extreme forms from isolated populations along the borders of the generic area being described as separate species. In dried material dimensions are often misleading; immature buds open slightly during drying and appear to be mature. *Lonicera sumatrana*, for example, described by Miquel, was based on bud material and thus misplaced in Rehder's monograph. For this reason it was not identified with *L. leiantha* Kurz and later was redescribed by Merrill as *L. jasminifolia*.

I am of the impression that in *Lonicera* too much stress has been laid on density of pubescence. To me the colour of the indumentum is more important. Of the four Javanese species recognized I am familiar with three in the living state, and I feel that it is of importance to know whether the upper lip is straight or whether both lips are recurved, the latter a character which probably goes parallel with the texture of the corolla. This difference is very striking in the Javanese species, but is not always readily distinguishable in herbarium material.

In the Javanese species, of which I have studied abundant material, the shape of the calyx-lobes, bracts, and bracteoles and their pubescence are rather variable, as are the shape and dimensions of the leaves and their pubescence. It seems urgent to me to obtain a clear idea of characters fit for specific distinction in the section *NINTOEA* and both of its subsections. The reduction of 13 names to only four species suggests a further reduction in the section.

I wish to draw attention to the possibility of polygamy as studied by Docters van Leeuwen, another testimony that geographical and ecological studies of plants cannot be carried on without an exact taxonomic knowledge. Docters van Leeuwen described *L. javanica* in his work on the "Biology of Plants and Animals Occurring in the Higher Parts of Mount Pangrango-Gedeh in West Java" (Verh. Kon. Akad. Wet. A'dam sect. II, 31: 235-239. 1933) and remarked that according to him only one species occurred in Java. His material belongs to *L. acuminata* (= *L. Loureiri*), as true *L. javanica* does not occur on the summit of Mt. Pangrango, where the altitude ranges from 2400 to over 3000 m. Figure 60 in his study suggests *L. javanica*, while fig. 61 is doubtless

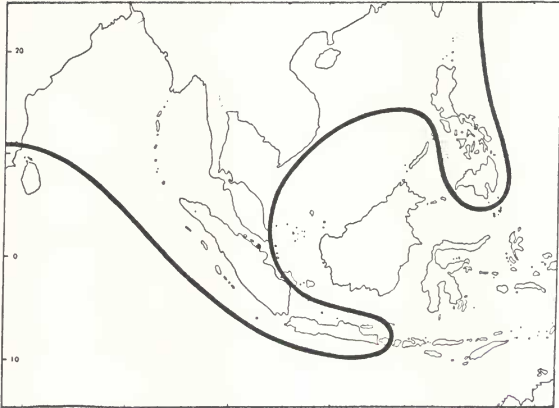


FIG. 1. Geographical distribution of the genus *Lonicera* in Malaysia, showing the two migrational routes.

*L. acuminata*. The first he calls the "bisexual" form. However, the dimensions of the flower, the two recurved lips, and the protruding anthers and style suggest identity with *L. javanica*.

In the "female" form which, according to his description, is certainly *L. acuminata* (= *L. Loureiri*), he describes the erect upper lip as forming a hood which covers most of the stamens and states: "the anthers which remain closed do not contain pollen." Yet, of so-called galled inflorescences with small flowers which hardly open he remarks: "the stamens which still may produce pollen remain hidden." Whether female forms of *L. acuminata* with sterile stamens occur I do not know; this must be further studied in the field.

All Malaysian species have the normal colour of the flower, i. e. creamy in buds and freshly opened flowers, yellow or orange in old flowers. Each is reported to be fragrant. Sometimes, the twigs of *Lonicera* are claimed to be used as a substitute for binding purposes (probably in emergency cases).

When dealing with Malaysian mountain plants which have originated on the southeastern Asiatic continent, one always must be extremely cautious in separating them from the Asiatic alliance and in classifying them as distinct species which are endemic in Malaysia. In addition to the great probability that the isolation has induced the Malaysian representatives to gain subspecific or racial value, the study of Indian and Malaysian species by various authors in different herbaria must be carefully considered; often these authors have limited themselves to the material in their country in order to avoid enlarging their study for which they needed material from other herbaria. Monographers sometimes follow the "current opinion" of earlier works and of botanists who confine themselves to administration rather than critical unbiased study. And local botanists often consider it outside their realm of work to combine their species with others of neighbouring countries, though they often hint at the possibility. This mutual disinclination to join forces leaves the identity and status of the plants often unsolved. Sumatran, Javanese, and Malay Peninsular mountain plants cannot be studied without consulting the southeastern Asiatic species. *Lonicera sumatrana*, in my opinion, occurs in Burma and Siam (under the name *L. leiantha*), and I expect *L. pulcherrima* and *L. javanica* also occur (under other names) on the Asiatic continent: *L. acuminata*, which I accept in the Hookerian sense, has the widest range.

For the sake of convenience I have made a key for the two cultivated and the four wild Malaysian species and I have added remarks under the latter. To facilitate naming duplicates in other herbaria I have mentioned the collector's numbers under each of them.

My provisional enumeration of the Malaysian species, in Bull. Jard. Bot. Buitenz. III, 13: 179. 1934, is herewith corrected.

#### KEY TO THE WILD AND CULTIVATED SPECIES OF LONICERA IN MALAYSIA

1. Each cyme of 2 flowers sustained by 4 bracteoles and 2 leafy bracts; filament and style glabrous; cultivated. . . . . 1. *L. japonica* Thunb.
1. Bracts not leafy . . . . . 2.
2. Ovary hairy all over; cultivated, but rather rare (Medan, Singapore) . . . . . 2. *L. confusa* DC.
2. Ovary glabrous (except the apex in *L. pulcherrima*). . . . . 3.
3. Plant entirely glabrous (except few hairs on stamens and style and small negligible ciliae on the edge of the calyx and the bracts); inflorescence loose, few-flowered; flowers 4-5 cm. long, the 2-flowered peduncles slender; nerves few, slightly prominent, the reticulations indistinct or hardly visible. . . . . 3. *L. sumatrana* Miq.
3. Hairy, at least the petiole; nerves and reticulations distinct, prominent. . . . . 4.
4. Corolla short but relatively thick, 13-20 mm. long (s. s.), the tube 1.5-3 mm. diam., the upper lip straight in opened flowers, the lower lip recurved; corolla of thick texture, not with glandular hairs; inflorescence dense, short, mostly not

- exceeding the upper foliage; thickened part of the bud about as long as the tube; stamens, at least 3 of them, included under the upper lip; pubescence rather rough, yellow, its density variable; leaves mostly rugose, sometimes subbullate, the midrib always hairy on the upper surface nearly to the apex, the leaves not glaucous beneath. .... 4. *L. acuminata* Wall.
4. Corolla 18-50 mm. long, the tube slender, 1-2 mm. diam., when mature both lips recurved; texture of the corolla thin; inflorescence not contracted, often foliated, paniculate, with glandular hairs, mostly exceeding the leaves; pubescence not rough, often not yellow; midrib often glabrous above; leaves glaucous beneath. .... 5.
5. Style slightly hairy; flowers long, mostly in dense rich-flowered *Ixora*-like, globose terminal inflorescences exceeding the leaves, in subumbelliform clusters at the ends of the upper axillary stalks; peduncles contracted with a conspicuous yellow tomentum which continues on the internodes of the twigs and is interspersed by dot-like, red glands; twigs not wiry and not glossy red-brown, but stiff; pubescence of the calyx-teeth often descending on the upper portion of the ovary. .... 5. *L. pulcherrima* Ridl.
5. Style glabrous; flowers medium-sized, in less rich-flowered inflorescences, the stalks mostly with a grey tomentum, the red sessile glands absent; twigs  $\pm$  wiry, soon conspicuously shiny red-brown, slender; ovary glabrous. .... 6. *L. javanica* DC.
3. *Lonicera sumatrana* Miq. (*L. leiantha* Kurz, *L. jasminifolia* Merr.).

By its glabrousness, subtriplinervous leaves without distinct reticulations, and poor-flowered lax inflorescences this species is clearly distinct from all other Malaysian representatives. The ovary also offers distinction: it is constricted at the apex, with the part of the calyx which is free from the ovary splitting halfway down so as to form a short tube, which, in turn, is much shorter than the ovary. The bracts are about half as long as the ovary, and the bracteoles are still smaller. In the other Malaysian species the free part of the calyx consists of five separate triangular to subulate lobes.

SUMATRA: Yates 2534; Teysmann 1039 HB; Lörzing 6602; Kleinhoonte 558; all from the Toba-region and Sumatra Westcoast; and Ajoeb (exp. Jacobson) 181 from Rimbo Pangadang in the Res. Benkoelen.

The species occurs in Burma, Siam, North and Central Sumatra, between 1000 and 1250 metres altitude. Lörzing mentions the flower as white, later yellow; Kleinhoonte claims the colour to be "rosa-like beige." It is a submontane plant occurring in forest borders.

Rehder placed this species incorrectly in the subsection BREVIFLORAE because of the fact that Miquel described the flowers from the immature bud state.

I have seen type specimens of *L. sumatrana* (Teymann 1039 HB from Alahan Pandjang, Sumatra Westcoast) and *L. jasminifolia* (Yates 2534 from Tapanoeli). These are quite identical. Of *L. leiantha* I have seen only the description. With Rehder's key one determines directly to *L. leiantha*. Kurz' description is also wholly fit for Sumatran plants. Because of these facts, I feel that all these names represent a single species, at which Merrill has already hinted.

4. *Lonicera acuminata* Wall. ex Roxb. (*Caprifolium Loureiri* Bl., *Lonicera Loureiri* DC., *L. oxylepis* Miq., *L. Leschenaultii* Miq. non Wall., *L. philippinensis* Merr., *L. Rehderi* Merr., *L. Giraldui* Rehder).

Ultimate twigs thick, 1.5–3 mm. diam., ruddy, not conspicuously shining brown, the inflorescences, leaves, etc., with yellow rather hirsute hairs, or glabrate. Petiole hairy. Leaves mostly rugose, sometimes subbullate, the lower surface not glaucous, the hairs on the lower surface scattered or nearly absent, the glandular-tipped hairs absent, the margin of the blade often recurved, sometimes entirely flat, the upper side of the blade often rather glabrous, but the midrib pubescent nearly to the apex. Inflorescences terminal and lateral in only few (2) axils, moderately or very dense as the upper internodes are short, never a loose panicle; inflorescence seldom exceeding the foliage, more or less embedded in it (also in fruit). Calyx-lobes ciliate, with few stiff hairs on the back. Buds rather short and thick, the enlarged upper portion about as long as the lower part, which is relatively thick, 2–3 mm. diam. Opened flowers about 13–20 mm. long (s. s.). Corolla-lobes 3–4 mm. broad, the upper lip straight, the lower lip recurved. Style about as long as the corolla. Stamens about as long as or shorter than the (expanded) corolla, pubescent or glabrous. Anthers large, 2.5–5 × 0.5–1 mm. Style pubescent or glabrous.

SUMATRA: *Bunnemeijer* 891, 9453, 9811.

JAVA: *Backer* 478, 3293, 3301, 5054, 5081, 9727, 13530, 22345; *Bakhuizen van den Brink* 35; *Bruggeman* 79; *Docters van Leeuwen* 123, 1159, 2516, 8207, 8352, 8353, 8739, 8942, 12262, 21709; *Hallier* f. 478, 480; *Koorders* 15632, 25975, 32215, 32217, 37359, 38271, 40367, 40920, 43538; *van Slooten* 2627; *van Steenis* 1990, 4056, 4870, 7428, 10917.

BALI: *Sarip* (R. Maier) 376.

PHILIPPINES: Bureau of Science 31886, 40232 (*L. philippinensis*).

The species is interpreted in the current sense of Blume (we possess a number of topotypes), Hasskarl, Hooker, Rehder, and Koorders. There is no question about its identity. Backer (in herb. Bogoriensis) expresses as his opinion that *L. Loureiri* and *L. javanica* represent the same species. Blume already mentioned the different altitude at which both species occur in Java, *L. Loureiri* thriving especially on summits and *L. javanica* in forests. If we study the altitudinal zone for all specimens together we have 1000–3300 m. If we separate *L. Loureiri* and *L. javanica* we find *L. Loureiri* at 1600–3300 m. and *L. javanica* at 1000–2000 m. This would indicate that the altitudinal ranges overlap. However, the altitudinal range is more intricate than it appears if we arrange separately the specimens found on each mountain. Then we obtain the distribution shown in FIG. 2.

From this table it appears that the altitudinal ranges do not overlap. Only on Mts. Patoeha and Gedeh in West Java do the ranges touch one another. No intermediate specimens have been found; both species show a "healthy" variability. However, it is not actually known whether they can grow together at the same location without intermingling. They might represent altitudinal exotypes (altcotypes versus planecotypes), the more so as both species occur in Java and Bali and "accompany" one another. The chance is small, as the differential characters are numerous and distinct. I shall study this later in the field.

As to the altitudinal occurrence, it is to be noticed that the general aspect of "Massenerhebung" is also here represented. If we examine FIG. 2, it appears that *L. acuminata* occurs between 1600 and 3300 m. but

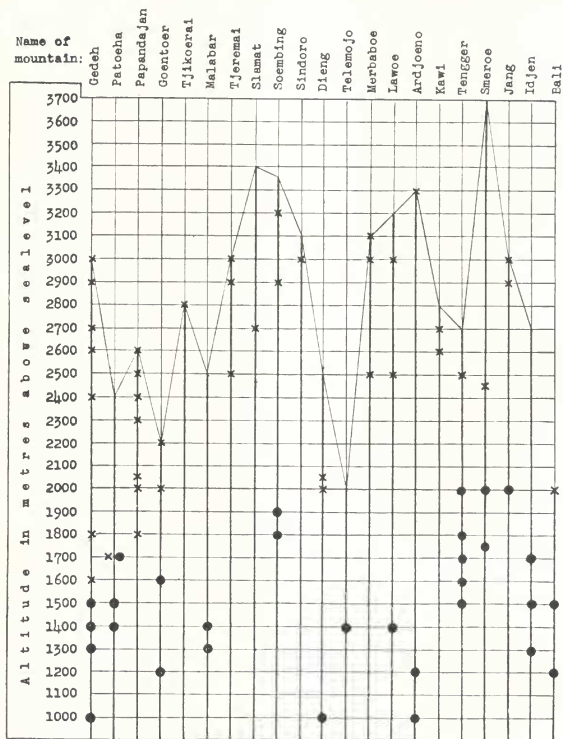


FIG. 2. Occurrence of *Lonicera acuminata* (crosses) and *L. javanica* (solid spots) in Java and Bali. The names of the mountains have been arranged, from left to right, in a west-to-east direction. The crosses and spots represent the altitude of the localities, while the thickened lines represent the altitudes of the summits of the various mountains.

only on mountains which themselves reach at least 2200 m. alt.; on these mountains it descends as low as 1600 m. In E. Java the lower limit is situated higher (at about 2500 m.), and *L. javanica* also reaches its highest stations there at about 2000 m., whereas in W. Java it is collected only up to 1700 m. On most mountains scarcely attaining 2200 m., such as Mts. Boerangrang, Tangkoeban Prahoe, Wajang, Windoe, Boekit Toenggoel, Galoenggoeng, Telagabodas, Oengaran, and Telemojo, *L. acuminata* has not been found.

On account of the occurrence of *L. Loureiri* in Sumatra, SE. Asia, and the Philippines, one would suspect *L. javanica* also to occur throughout that range, but as far as our material goes *L. javanica* has not yet been collected in Sumatra. On the other hand I suspect that *L. javanica* represents a race or subspecies of some SE. Asiatic species, in a widened specific concept, a concept which I think is badly needed in *Lonicera*.

My conclusion is that the status and distribution of *L. Loureiri* are sound but those of *L. javanica* are less satisfactory.

In some specimens I have found 3-verticillate leaves. The flowers occur sometimes in threes instead of twos. It is peculiar that the hairs on the corolla in *L. Loureiri* and *L. javanica* are directed toward the base of the corolla.

*Lonicera Rehderi* Merr. (1905) is described from the Philippines. On account of the fact that it is described with hairy midrib, the flowers about 2 cm. long, setosely pilose, in a crowded terminal inflorescence, the corolla-limb as long as the tube, I believe it to represent *L. acuminata*. As such it was identified at first according to Merrill's publication. Merrill says that, according to Rehder, *L. Rehderi* should differ from both *L. Loureiri* and *L. acuminata* in its yellow, not red, corolla, etc. But the flower of *L. Loureiri* is of the same general colour as are the other Malaysian species: at first creamy or light yellow, later yellow. The other differential characters I think are of hardly any value for distinction. Specimens referred to this species are not present at Buitenzorg, but I do not hesitate in regard to its identity.

*Lonicera philippinensis* is represented at Buitenzorg by the two cited duplicates, which fit in clearly with the Javanese material. The small corolla, the tube as long as the limb, the dense umbelliform sessile inflorescences, the ciliate calyx, the short style, and the yellow pubescence point certainly to *L. Loureiri*, to which it should be reduced, in my opinion. Merrill says that it is quite distinct from *L. Rehderi*, but I cannot find any important difference after comparison of both descriptions.

*Lonicera oxylepis* Miq. is partly based on Blume's type. Miquel is of the opinion that the name *L. Loureiri* ought to be reserved for Loureiro's plant. This is not proper, since Blume's description was based wholly on Javanese specimens without any reference to Loureiro's plant, as was done by De Candolle.

*Lonicera Leschenaultii* Miq. non Wall. is clearly the same as *L. oxylepis*, as may be inferred from Miquel's publication.

Of *Lonicera acuminata* I have seen only the description and a sheet (Smith & Cave 2633) named *L. acuminata*, and two Sikkim sheets, coll. T. Thomson, named *L. Lourcieri*, all of which are matched by several Javanese specimens (Kocns 444, Backer 3293, 3301, 21709). Unfortunately, the specific name *L. acuminata* has priority over *L. Lourcieri* by one year. On the other hand, Clarke also pointed to the identity and says that the Javanese species differs in the glabrous corolla-tube and style. I have found that these characters vary, the corolla is pubescent or glabrous, and the style is also sometimes pubescent on the middle portion (Backer 25975) or glabrous (Backer 478). Also the stamens are sometimes glabrous (Backer 478) or pubescent (Bünnemeijer 891). One must be very cautious in dissecting the stamens, otherwise their always hairy elongation which is coalescent with the corolla-tube is interpreted as "stamens with hairy base." If one is still convinced of the distinctive specificity of the Javanese specimens, the alternative is that *L. acuminata* also occurs in Java, the specimens from Java being identical with those from SE. Asia. The leaf-shape and size of the Javanese specimens vary from ovate to lanceolate.

*Lonicera Giraldii* Rehder is distinguished by Rehder from *L. acuminata* by a slight difference in the relation between the length of the tube and the limb, the size of the leaves, and the spreading hairs, characters which are rather variable. The only character of importance could be the spreading, not reflexed hairs of the corolla in *L. Giraldii*, but even this can hardly serve as a specific character.

*Lonicera acuminata* occurs in SE. Asia (Himalayas to China), the Philippines, and Sumatra-Java-Bali; it was dispersed in two invasions into Malaysia (FIG. 1).

5. *Lonicera pulcherrima* Ridl. (?*L. malayana* Henderson).

A species which can be easily distinguished in the subsection LONGIFLORAE by its pubescent style, the other species possessing this character being *L. sumatrana* (= *L. leiantha*), *L. Hildebrandiana*, *L. Braccana*, and *L. dasystyla*. From the first three it is totally different in its pubescence. From *L. dasystyla* it differs in numerous characters: the bracts as long as the ovary, the larger leaves yellow-tomentose (usually densely) beneath, the rich-flowered globose terminal inflorescence with flowers in subumbelliform clusters at the ends of the upper axillary stalks, and the hairy calyx-teeth which are as long as the ovary.

SUMATRA: Only in Atjeh, Tapanoeli, and the Eastcoast. Plant not tall, climbing mostly in open rocky places, between 850 and 1400 m. alt.—Hagen s. n.; Huitema 50; F. R. I. b. b. 9842; Jochems 66; v. d. Koppel 8; Lörzing 4565, 4973, 6222, 6603, 7155, 7920, 8297, 9967; v. d. Meer Mohr 135; Ouweland 66; van Steenis 5853; Symington 24690; Yates 1282, 1402, 2202.

I can place *Lonicera malayana* here only provisionally until I have studied the type specimen; it is antedated by *L. pulcherrima* by one year. The large flowers (by corolla-tube 6 cm. long is probably meant the whole corolla statu vivo?) and the yellow pubescence remove it from



*L. javanica* and *L. acuminata*. Most characters, along with its geographical distribution and altitudinal range, point to its identity with *L. pulcherrima* Ridl. However, there are three points of difference: firstly the corolla is said to be *sparsely* yellow-pubescent on the outside (in *L. pulcherrima* it is densely or rather densely hairy), secondly, the style is mentioned as *glabrous* (Henderson may have overlooked the few hairs which are always present in *L. pulcherrima*), thirdly, the inflorescence is described "Peduncles axillary, 3 1/2 cm. long, . . . two-flowered." This hardly seems to match *L. pulcherrima*. A further decision is to be postponed.

Ridley correctly pointed out the difference between *L. macrantha* and *L. pulcherrima*.

6. *Lonicera javanica* (Bl.) DC. (*Caprifolium javanicum* Bl., ?*L. mindanaensis* Merr.)  
(Description after Javanese specimens).

Ultimate twigs *grey-short-hairy*, mixed with *glandular-tipped* hairs, the internodes soon *shiny brown, slender, 1.5-2 mm. diam.* Petiole *hairy, also in glabrate forms.* Underside of the blade *glaucous* (also s. s.), glabrate or more or less densely *grey-hairy* to thinly subtomentose. Margin of the blade flat or nearly flat. Upper surface of the blade *not or slightly rugose*, glabrous or the base of the midrib hairy. Inflorescences short *grey-hairy*, terminal and in the upper axils so as to form a rather *lax panicle exceeding the leaves*; lower branches up to 6 cm. long, provided with reduced leaves, the upper internodes not abbreviated, the flowers and stalks provided with numerous or few *glandular-tipped* hairs. Calyx-lobes *mostly* rather densely grey-hairy. Bud club-shaped, the thickened end about  $\frac{1}{3}$ - $\frac{1}{4}$  of the length of the mature bud, often acute. Corolla about 18-30 mm. long. Corolla-tube *slender, about 1 mm. diam. or thinner.* Corolla-lobes *narrow, about 1-2.5 mm. broad, both lips eventually recurved*, the lobes as long as the tube or *shorter.* Anthers thin, 2-4 × 0.3-0.5 mm., the stamens protruding. Style often *longer* than the corolla.

JAVA: *Backer 3700, 3702, 5215, 9861, 15710, 22496, 25087; Bakhuizen van den Brink 34, 1411, 1412, 2241; Danser 6737; Denker 48; Docters van Leeuwen 341; Kobus 141; Koorders 14939, 26033, 26300, 27917, 28647, 31617, 32270, 32891, 37356-37358; Lörzing 136; Mousset 641, 863; Sapiin 2561; Soegandiredja 185, 213; Smith & Rant 425; Winckel 775, 1857.*

BALI: *de Voogd 1680.*

Known only from Java, Bali, and the Philippines; closely allied to *L. glabrata* DC. and *L. affinis* Hook. & Arn.; in forests and forest borders between 1000 and 2000 m.; sometimes (in Java) cultivated.

On young shoots 3-lobed leaves sometimes occur (*Bakh. v. d. Br. 2241*). The leaf-parenchyma is very finely white-dotted in the herbarium under the lens. Sometimes 4-flowered clusters occur in the same plant along with 2-flowered cymes.

On the inflorescences, the leaves, and the internodes glandular-tipped hairs occur next to normal hairs. Sometimes the corolla is clad only with sparse glandular hairs. I have never seen sessile, red dot-like glands in *L. javanica* as in *L. pulcherrima*.

The pubescence is very variable. There is a series of intermediates between very hairy forms like *Koorders 14939* and almost glabrous forms

as collected by Rant above Prigeu and Ultée above Poenten. However, the petiole always remains hairy. Leaf-shape and leaf-size are also rather variable, with ovate and obovate leaves occurring on the same twig. The pubescence of the calyx-teeth varies from ciliation on the margin to entirely tomentose. The pubescence of the twigs and underside of the leaves may even approach a yellowish colour, e. g., in *Koorders 14939, 26300, 32891*. The hairs of the corolla are pointed downward, while the glandular hairs stand off at a right angle.

The length of the flower is variable, the tube 10–19 mm., the limb 8–14 mm. in the dried state (in living specimens the flower measures 30–35 mm.).

From *L. acuminata* it is easily distinguished by its slender, glandular corolla, the two recurving lips causing the stamens to protrude, and in the absence of rather stiff yellow hairs. Since in fresh specimens the corolla of *L. acuminata* measures from 15–30 mm., there is no reason to insert *L. javanica* in the subsection LONGIFLORAE and *L. acuminata* (= *L. Lourciri*) in the subsection BREVIFLORAE. The distinction of these subsections is in my opinion rather artificial, *L. javanica*, *L. affinis*, and *L. glabrata* being so closely allied that there is a chance that they will appear to belong to one species after an extensive study of more material.

*Lonicera javanica* has not been found as yet in Sumatra. To a certain degree it is replaced there by *L. pulcherrima*, but although *L. pulcherrima* grows at the same altitude, it prefers more open places and is, therefore, not such a tall climber as is usually the habit of *L. javanica*. I doubt whether the species really exclude each other.

*Lonicera mindanaensis* is a glabrate form (such as also occur in Java, though I have not found in Java entirely glabrous mature foliage as is described in *L. mindanaensis*), and the reddish brown branches, the small flowers, the hairy petiole, the narrow corolla-lobes, and the inflorescence point together to *L. javanica*. Merrill says that it is distinguished from *L. Rehderi* and *L. philippinensis* by its larger flowers. However, this difference hardly concurs with Merrill's description (*L. mindanaensis*: 22 mm. corolla; *L. Rehderi*: 20–22 mm.). *Lonicera mindanaensis* is described with filaments and style villous in their lower part, the bracteoles orbicular-reniform.

#### DOUBTFUL RECORDS

*Lonicera chinensis* was mentioned as occurring in New Guinea by Miquel (Fl. Ind. Bat. 2: 128. 1856) on the basis of a specimen collected by Zippel to which the latter apparently had attached the manuscript name *L. repens* Zipp.

As *Lonicera* is not likely to occur in New Guinea, Zippel's specimen may represent a cultivated plant of *L. japonica*, but 1856 would seem a very early date for this ornamental. *Lonicera repens* is mentioned by Hasskarl as cultivated in the Botanic Gardens at Buitenzorg in his Cat. Hort. Bog., p. 116. 1844. According to Index Kewensis and Rehder this is *L. japonica*.

Though there is no reason for me to doubt Miquel's identification, an examination of the original specimen in the Leyden Herbarium is necessary. There is also a probability that Zippel's plant came from Java, as several of his labels appear to be incorrect or mislaid at Leyden; this was certainly not caused by that gentleman himself, as he was very accurate and of wide knowledge.

## EXCLUDED RECORDS

*Lonicera* Gaertn. = Loranth.

*Lonicera chinensis* Wats., *L. confusa* DC., *L. javanica* DC., and *L. macrantha* DC. were mentioned to occur in the Philippines by F.-Villar, Nov. App. 104. 1880; these records are excluded by E. D. Merrill, Enum. Philip. Fl. Pl. 3: 578.

*Lonicera Symphoricarpus* Blanco, non L. = *Scurrula philippinensis* (Cham. & Schltd.) G. Don, cf. Danser in Philip. Jour. Sci. 58: 121. 1935.

BOTANIC GARDENS,  
BUITENZORG, JAVA.